Job Name	SHANDH		Job Numbe	r_98	7-507.	- ful
Well Number MV						
Well Diameter <u>Mu</u>						
Depth to Water (st	atic) 14.37 TOC	elev		Γ		
G.W. Elev.	Maximum Dr	awdown Limit (i	f applicable)	4.9	r = well radius h = ht of wate	in ft r col. in it
	ter in casing 130.6	3 Volume	$\frac{1.30}{300}$ gallons		vol. in cyl. = π 7.48 gal/fr ¹ V_2 " casing = π	.163 gal/fr
Total to be evacuat	ted = 3 x Initial Volun	ne _	391 gallons		V ₄ " casing = 0 V ₄ " casing = 0 V _{4.5} " casing =	0.653 gal/fr 0.826 gal/fr
Stop Time	Start Time	Bailed	Pun	nped	V." casing = 1	.47 ஜப்/பெ um. Gal.
Pumped or Bailed D	Ory? Yes XN	o After _ Odor	gallons	Reco	overy Rate	
Description of sedi	ments or material in s	ample:				
	nts:					
CHEMICAL DATA						
Reading No.	1 2	. 3	4	5	6	7
Time						
Gallons						
Temp. (degree F)	72.8 70.8	715				
рН	6.18 6.05	5 6.35				
EC (umhos/cm)	1006 969	992				
Special Conditions						
SAMPLES COLLEC	TED					
Sample Bottl		Preservative	Refrig.	Lab		Analysis
ID ml cap	(size, u)	(type)	(R, NR)	(Init)		Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe) Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal.

94-507-14

Well Number	-221165 Date	7/13/05		Time	insupply to the first the			
Well Diameter MUT	Well [Depth (spec.)	W	ell Depth	(sounded) [65.00		
Depth to Water (sta	tic) 14.38 TOC	elev.		Γ				
	Maximum Dr				$\frac{Pormulas/Con}{r = well radius}$			
Initial height of wat	er in casing 150.6 ed = 3 x Initial Volun	2 Volume	1.50 gallons 4.51 gallons		h = ht of water vol. in cyl. = π 7.48 gal/ft ³ V_2 " casing = 0 V_3 " casing = 0 V_4 " casing = 0 V_4 " casing = 0	ਵੀਬ 163 gal/ ਪੈ 367 gal/ ਪਿ 653 gal/ ਪਿ 0.826 gal/ ਪਿ		
Stop Time	Start Time	Bailed	<u>P1</u>	<u>Pumped</u>		۷," casing = 1.47 هماراد <u>Cum. Gal.</u>		
Pumped or Bailed D	ry? Yes XN	o After	gallons	Rec	overy Rate			
Water color		Odor	· · · · · · · · · · · · · · · · · · ·					
	ments or material in s							
CHEMICAL DATA								
Reading No.	1 2	. 3	4	5	6	7		
Time	.4							
Gallons Temp. (degree F) pH	73.6 71.0 5.85 5.9	69.9						
EC (umhos/cm)	798 76	1 78-5						
Special Conditions								
SAMPLES COLLEC								
Sample Bottl ID ml cap		Preservative (type)	Refrig. (R, NR)	Lat (Init		Analysis Requested		
					1			

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; <math>O = Other (describe) Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

Job Name YOLANDA		Job Number	98.	-507-	14
Well Number MW-23 d 25 Da	Time				
Well Diameter MUSTI-LEVEL W	1 1		Depth (sounded) _	25.00
Depth to Water (static) 15.09 To			Γ		
G.W. Elev Maximum			-2	r = well radius in h = ht of water	n ft
Initial height of water in casing $\frac{9.9}{1.00}$. Total to be evacuated = $3 \times \text{Initial Volume}$		0.09 gallons 0.29 gallons		vol. in cyl. = π_0 7.48 gal/ft ³ V_2 " casing = 0. V_3 " casing = 0. V_4 " casing = 0. $V_{4,5}$ " casing = 0.	라 163 gal/it 367 gal/it 653 gal/it 826 gal/it
Stop Time Start Time	Bailed	Pum	ped	V." casing = 1.	۱۱ پما/(ز um. Gal.
Pumped or Bailed Dry?YesYes				very Rate _	
Description of sediments or material i				•	
Additional Comments:					
CHEMICAL DATA					
Reading No. 1	2 . 3	4	5	-6	7
Time				*,	
Gallons					
Temp. (degree F)					
рн 6.99					
EC (umhos/cm) 531					
Special Conditions					
SAMPLES COLLECTED					
Sample Bottle/ Filtered	Preservative	Refrig.	Lab		Analysis
ID ml cap (size, u)	(type)	(R, NR)	(Init)		Requested
			1		

Bottles: P = Polyethylene; Pp = Polypropylene; $C \text{ or } B = Clear/Brown Glass}$; O = Other (describe) Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal.

Job Name	DEMINIT		Job Num	ber	00/00	14
					в	
Well Diameter Month	Thirty EL Well D	epth (spec.)	V	ell Depth	(sounded)	75.00
Depth to Water (stati	c) 15.17 TOC e	lev				
G.W. Elev	Maximum Dra	awdown Limit (i		9	Formulas/Cor r = well radius h = ht of wate vol. in cyl. = π 7.48 gal/ft ³	cin fi er col. in fi tch
Total to be evacuated			1.79 gallor		V ₃ " casing = 0 V ₄ " casing = 0 V ₄ " casing = 0 V _{4.5} " casing = 0	0.367 gal/fr 0.653 gal/fr 0.826 gal/fr
Stop Time	Start Time	Bailed	P	umped	V _e " casing = 1	um, Gal.
Pumped or Bailed Dry Water color	Yes XNo	After Odor	gallons	Rec	overy Rate	
Description of sedime	ents or material in sa	mple:				
Additional Comments	!			•		3849
CHEMICAL DATA						
Reading No.	1 2	. 3	4	5	6	7
Gallons						
Temp. (degree F)	71.6 68.8	695				
EC (umhos/cm)	1219 1235	1207				
Special Conditions	D	1 pp. 4 2000 1				
SAMPLES COLLECTE						
Sample Bottle/	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)		Analysis Requested
					1	
Bottles: P = Polyethylene;	Pp = Polypropylene; C	or B = Clear/Brown	Glass; O = Othe	r (describe)		

Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal.

Job Mame _	IOM	7/1/2/77		Job Nur	nber	8-00%	- 14
Well Numbe	or MW-23	37 15 Date_	7/13/05		Tim	е	
Well Diamet	ter Much	TheyaL Well D	epth' (spec.)		Well Depth	(sounded)	145.00
Depth to Wa	ater (static)	15.52 TOC e	lev				
G.W. Elev.	t of water i	Maximum Dra n casing 129.48 = 3 x Initial Volum	awdown Limit (Volume	if applicable) _ 1.29 gallor 3.8% gallo	าร	Formulas/Co r = well radiu h = ht of water vol. in cyl. = 1 7.48 gal/ft ³ V ₃ " casing = 1 V ₄ " casing = 1	s in fi er col. in fi π ch 0.163 gal/fi 0.367 gal/fi 0.653 gal/fi
Stop Time	<u>S</u>	tart Time	Bailed]	Pumped	V _{4.3} " casing = V _{4.3} " casing = C	0.826 gd/ft 1.47 gd/ft Dum. Gal.
Pumped or 8	Bailed Dry?	Yes X No	After	gallons	Rec	Overy Rate	
Water color		Yes No	Odor _	gament		overy make	
Description	of sedimen	ts or material in sa	mple:				
Additional C	comments:				•		
							-
CHEMICAL	DATA						
Reading No.		1 2	. 3	4	5	6	7
Time	. –			and the same of th			
Gallons	, , , , , , , , , , , , , , , , , , ,	14. 8 4 pm					
Temp. (degr	ee F)	143 74.0	76.4				
рН	(0	18 6.43	6.41				
EC (umhos/c		181 749	140				
Special Cond							
SAMPLES C							
Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)		Analysis Requested
Bottles: P = Po	lvethylene: P	n = Polypropylene: C	or B - Class/Da	- Classic Control			

Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal.

Job Name	YOLH	NOA		Job Nu	mber 98	-507-1	4		
Well Number MW-23d180 Date 7/3/05				_	Time				
Well Diameter MULTI-LEVEL Well Depth (spec.)					Well Denth (sounded) 180,000				
			elev.]	1000110007	7 40 60		
	G.W. Elev Maximum Drawdown Limit (if ap					Pormulas/Con			
Initial height o Total to be ev Stop Time	f water in cacuated = 3	asing 164.4	Ll Volume	1.64 gallo 4.93 gallo	ns	h = ht of water vol. in cyl. = 7.48 gal/ft ³ V ₃ " casing = 0 V ₄ " casing = 0 V ₄ " casing = 0 V ₄ " casing = 1	r col. m fi tch 1.163 gal/fi 1.367 gal/fi 1.653 gal/fi 1.826 gal/fi		
<u> </u>									
-									
Pumped or Ba	iled Dry? _	Yes _X_1	No After _ Odor _	gallon	s Rec	overy Rate			
Vyater color	andiment.		Odor _	· · · · · · · · · · · · · · · · · · ·					
Additional Coi	sealments (or material in s	sample:						
Additional Col	nments:								
CHEMICAL DA	ATA					*			
Reading No.		2	. 3	4	5	6	7		
Gallons	A	east,							
Temp. (degree pH	(6.3)	3 70.	H 705 5 6.47						
EC (umhos/cm	56	28 509	8 534			1.			
Special Condit	ions								
SAMPLES CO	LLECTED								
Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)		Analysis Requested		
	1387								

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe) Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal.

APPENDIX E STANDARD OPERATING PROCEDURES

ECM STANDARD OPERATING PROCEDURE

GROUND WATER SAMPLING

The following describes sampling procedures used by ECM field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters

have stabilized (i.e., changes in temperature, pH or conductivity do not exceed 10%).

Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in

polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under

Ground water samples are collected from the wells/borings with steam-cleaned or disposable

The chain-of-custody form includes the project number, analysis requested, sample ID, date analysis and the ECM field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending

chain-of-custody to the laboratory.

with the laboratory personnel.